

What is claimed is:

1. A high-frequency multi-selection prescaler adapted for a high-frequency divider circuit, comprising:

a first frequency divider for receiving an input signal and generating an output signal with a divided frequency through a frequency division process;

a second frequency divider connected to said first frequency divider for performing a further frequency division process on said output signal from said first frequency divider on the basis of a selection switching means having a plurality of selection signals and a plurality of AND gates;

a module control for performing a logic operation on said plurality of selection signals and an external control signal (MC) by at least one OR gate and sending an operation result to said first frequency divider to control said divided frequency of said first frequency divider; and

an output selection circuit connected to said second frequency divider for performing a signal output selection in accordance with said plurality of selection signals;

whereby, through the combination of said first frequency divider and said second frequency divider, along with the control of said module control, a divider circuit having expanded frequency selections is formed to provide multiple divided frequencies.

2. The high-frequency multi-selection prescaler of claim 1, wherein said first frequency divider consists of a plurality of D-flip-flops and a plurality of AND gates.

3. The high-frequency multi-selection prescaler of claim 1, wherein said second frequency divider consists of a plurality of D-flip-flops and a plurality of AND gates and is adjustable according to a divide ratio required by a user.

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4. The high-frequency multi-selection prescaler of claim 1, wherein said module control controls said divided frequency of said first frequency divider on the basis of the voltage level of said external control signal (MC).

10 5. The high-frequency multi-selection prescaler of claim 1, wherein said output selection circuit consists of a plurality of AND gates and an OR gate, and wherein said output selection circuit is connected to said second frequency divider and performs the signal output selection in accordance with said plurality of selection signals.

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6. The high-frequency multi-selection prescaler of claim 1, wherein said second frequency divider operates on the basis of the selection switching means having said plurality of selection signals and said plurality of AND gates to control a divided frequency of the whole circuit.

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7. The high-frequency multi-selection prescaler of claim 6, wherein said selection switching means of said second frequency divider operates in coordination with said output selection circuit to perform the signal output selection and control the divided frequency of the whole circuit.

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8. A high-frequency multi-selection prescaler adapted for a high-frequency.

divider circuit, comprising:

a first frequency divider consisting of a plurality of D-flip-flops and a plurality of AND gates for receiving an input signal and generating an output signal with a divided frequency through a frequency division process;

a second frequency divider consisting of a plurality of D-flip-flops and a plurality of AND gates and being connected to said first frequency divider for adjusting a divide ratio and performing a further frequency division process on said output signal from said first frequency divider on a basis of a selection switching means having a plurality of selection signals and a plurality of AND gates;

a module control for performing a logic operation on said plurality of selection signals and an external control signal (MC) by at least one OR gate and sending an operation result to said first frequency divider to control said divided frequency of said first frequency divider; and

an output selection circuit connected to said second frequency divider for performing a signal output selection in accordance with said plurality of selection signals;

whereby, through combination of said first frequency divider and said second frequency divider, along with control of said module control, a divider circuit having expanded frequency selections is formed to provide multiple divided frequencies.

9. The high-frequency multi-selection prescaler of claim 8, wherein said module control controls said divided frequency of said first frequency divider on the basis of the voltage level of said external control signal (MC).

10. The high-frequency multi-selection prescaler of claim 8, wherein said
output selection circuit consists of a plurality of AND gates and an OR gate,
and wherein said output selection circuit is connected to said second
5 frequency divider and performs the signal output selection in accordance
with said plurality of selection signals.

11. The high-frequency multi-selection prescaler of claim 8, wherein said
second frequency divider operates on a basis of the selection switching
10 means having said plurality of selection signals and said plurality of AND
gates to control a divided frequency of the whole circuit.

12. The high-frequency multi-selection prescaler of claim 11, wherein said
selection switching means of said second frequency divider operates in
15 coordination with said output selection circuit to perform the signal output
selection and control the divided frequency of the whole circuit.